

#### ZX80/81, TS DAY AREA 1

155UE! Program reviews, Machine Code, FONE file PART ONE THIS

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#### MEMBERSHIP PROPOSALS

THE FOLLOWING PROPOSALS WILL BE VOTED ON MAY 19. THEY ARE BEING MADE TO TAKE CARE OF INCREASED PRODUCTION AND MAILING COSTS AND TO ALLOW MEMBERS TO USE OUR EXPANDING PROGRAM LIBRARY.

MEMBERSHIP DUESFULL (NEWSLETTER AND LIBRARY PRIVILEGES) \$15.00
NEWSLETTER ONLY \$10.00
STUDENT \$8.00
MONTHLY (GUARANTEES TWO
NEWSLETTERS) \$2.00

ALL RATES ARE FOR ONE YEAR.
HALF YEAR RATES ARE:
FULL (1/2 YEAR) \$ 8.50
NEWSLETTER (1/2 YR) \$ 5.00
STUDENT (1/2 YR) \$ 4.00 8.50 5.00 4.00

STUDENT MEMBERS INCLUDE UP TO HIGHSCHOOL AGE INDIVIDUALS. FULL AND STUDENT MEMBERS WILL RECEIVE A LIBRARY CARD ALLOWING THEM TO CHECK OUT ONE TAPE OR BOOK FOR A PERIOD OF ONE MONTH\*. \*SEE ARTICLE BELOW.

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# BOOK REVIEW

MASTERING YOUR TIMEX SINCLAIR
PERSONAL COMPUTER, BY TIM
HARTNELL AND DILWYN JONES

GET THIS BOOK\*\*ESPECIALLY IF
YOU ARE A BEGINNER. IT TELLS
YOU ALL SORTS OF THINGS THE
MANUAL DOESN/T SUCH AS HOW TO
STORE STRINGS AND ARRAYS AND
HOW TO USE COMMON PEEKS AND
POKES, ALL ILLUSTRATED WITH
INTERESTING PROGRAMS. IT ALSO
INCLUDES A SECTION ON TRANSLATING FROM OTHER BASICS. AND ANY
BOOK WITH A SECTION ENTITLED
"GREAT SYSTEM CRASHES" HAS
SOMETHING GOING FOR IT.
THIS BOOK IS AVAILABLE FROM
BANTAM BOOKS FOR A LIST PRICE
OF \$3.95 (\$3.55 FROM CROWN
BOOKS).
HENRY POLLARD

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HENRY POLLARD

# NEXT MEETING THURSDAY MAY 19 BERKELEY WEST BRANCH LIBRARY SAN PABLO AVE. SAN FRANCISCO **認**SACRAMENTO MÉETING STARTS AT 7 30 PM

#### 8 A Z U G LIBRARY

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THE BAZUG LIBRARY IS AVAILABLE FOR MEMBERS WITH FULL OR STUDENT STATUS, ITEMS MAY BE CHECKED OUT FOR USE DURING MEETINGS BEFORE 9:00 P.M. AFTER WHICH MEMBERS MAY TAKE TURNS SELECTING ITEMS TO CHECK OUT FOR HOME USE. ALL MATERIALS ARE DUE BACK THE NEXT MONTHLY MEETING WITH THE PROVISION THAT IF ANOTHER MEMBER WISHES TO BORROW THE SAME ITEM, ARRANGEMENTS HAVE TO BE MADE SO BOTH MEMBERS HAVE EQUAL ACCESS TO THE MATERIAL. 

DETAILS AND PROGRAM available at the May 19 meeting. SEE YOU THERE!!!

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lim March 3216 Partidge Ave. Oakland, Ca. 94605

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AIR ATTACK BY INTERCOMP	######################################
BACKGAMMON	16K <b>2 2 2 2</b> 8 8 0 GAME 5 7 6 9 1 <b>3</b>
BY TIMEX (SINCLAIR)	GAME 5 7 6 9 1 🗟 TOO SLOW
CHESS BY PSION (TIMEX/SIN)	16K
CLUB RECORDS BY SINCLAIR	16K <b>2 2 2 3</b> 8 0 File 3 3 3 2 1 <b>2</b>
DICTATOR	15K BBBBAN
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RED ALERT By Softsync	16K B B B B R O GAME 6 8 5 8 2 B ARCADE
ROBBERS OF THE LOST TOMB BY TIMEWORKS	15K <b>B D B</b> R R O GAME 5 4 5 3 3 <b>B</b> ADVEN POOR GRPHC, LONG
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EDITOR RICK LINK
STAFF JOEL BRODY, WOODY
MCPHEETERS, H. POLLARD
PLEASE SEND ALL ARTICLES,
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CREDIT IS GIVEN TO THE SOUR
PROPER SOURCE.

#### MACHINE CODE UTILITY PROGRAMS: ASSEMBLERS

It'a cliche that Z80 machine code (MC) is just another programing language that you shouldn't be scared of or put off by. However, MC programing on a T/S can be frustrating and tedious without the aid of utility programs. Without these aids the MC routine involves 1) making a program flowchart, 2) writing out the program in Z80 mnemonics, 3)translating the mnemonics into the number code and 4) POKEing in the code usually with the help of a simple BASIC loading program. If there are errors, deletions or additions you have to repeat steps 3 & 4 which can make the process quite discouraging.

Much of the hassle of MC can be eliminated with a good "assembler program". Assemblers do the dirty work of translating mnemonics and entering the code, so you are left with the programing problems alone. Recently, I obtained 2 assemblers at Sunset Electronics:

ZX Assembler, IPS (written by Artic), \$14.95 ZXAS, Data-assette (written by Bug-Byte) \$14.95

ZX Assembler is a wonderful program that is an absolute must for anyone doing MC on a T/S. Briefly, here is what the program does:

1)You can type in the Z80 mnemonics and the program will assemble the MC in a REM state-  $\,$ ment. This feature alone makes the program worthwhile. Numbers can be included in decimal or hex.

2)You can insert and delete lines and digits easily. You can do this with word processor ease and there is a repeat function for all

3)ZX Assembler allows you to label statement lines. A label is placed before a line of mnemonics. You can then CALL or JP to the label name instead of going through the tedious process of determining the exact address of the line. This is very useful during editng and debugging where the address can change.

4)You can include comments after the mnemonic

code to explain a line or routine.

5) There is a facility to move blocks of memory from one location to another.

6)There is a monitor routine that will list memory locations and their contents.
7)You can directly inspect and modify the

Z80 registers.

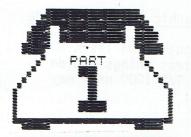
8) The program has a number of useful MC subroutines that are useful in your programs.

This is quite a lot for a program to do. It eliminates the unnecessary frustration and tedium of MC and leaves you only the unavoidable frustration. The documentation of ZX Assembler is excellent. It is the most professional and trouble free T/S program I have seen. You need this program if you are serious about MC.

ZXAS is not as good as ZX Assembler. The mnemonics are entered in modified form in a series of REM statements. This is difficult to get used to as compared to <a>ZX</a> Assembler</a> where the program you enter is in the form you see in SYNC. The editing facilities are poor and the documentation is sparse and cryptic.  $\overline{ZXAS}$ would be very useful if it was all that was available, but this is not the case.

Joel Brody





## "FONE" FILE PROS

THIS PROGRAM
HAS BEEN DONATED
BY GERALD PAXTON
FOR YOUR USE (SO
LONG AS YOU DON/T
SELL IT), PARTT
WILL APPEAR NETT-UP
ROUTINE, ENTER
FACUTINE NUMBERALD
HAS LISTED THE
EACH COMMAND WITHOUT LINE NUMBERALD
HAS LISTED THE
CASSETTE COPY
THIS PROGRAM
CASSETTE COPY
THIS PROGRAM
CONTACT COMME
THE THURSDAY
MEETING WITH A
BLANK CASSET DONATED
TO BAZUG.
THANKS GERY \$1.00 TO BE DON TO BAZUG. THANKS GERRY \*\*\*\*\*\*\*\*\*\*\*

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### SUNSET ELECTRONICS

2254 TARAVAL ST. SAN FRANCISCO, CA 94116 (415) 665-8330

SET-UP ROUTINE ENTER THESE COMMANDS-NO LINE NO.

L SPACE RUN 2 LET B\$="14 MAX" LET A=50 95 GOTO 30

1 GOTO 50 10 REM COPYRIGHT 1983 GERALD P AXTON 20 DIM B\$(14) 30 DIM N\$(A,32) 40 LET B=0 50 LET E\$="

N\$ (A,32) B=0 E\$="

50 LEI E\$="...

60 CLS

70 PRINT B\$;" TELEPHONE LIST

80 PRINT ALL AND MESARCHINAMEHALL

ACCEPTOR B\$;" TELEPHONE SARCHINAMEHAR

Ø 160 IF INKEY#="F" THEN GOTO 129

Ø 170 180 190 GOTO 100
CLS
LET X=0
LET J=0
LET J=1
LET Y=1
LET Y=1
LET Y=1
PRINT N\$(X)
IF J=20 THEN GOSUB 290
IF X<B THEN GOTO 210
PRINT "LAST ITEM ON LIST"
GOSUB 290
GOTO 80
PRINT
PRINT "KEY ""ENTER"" TO CON GOTO 100 

E"
INPUT Z\$
CLS
RETURN
CLS
LET B=B+1
LET X=1
IF B>A OR X>A THEN GOTO 410
IF N\$(X) = E\$ THEN GOTO 490
LET X=X+1
GOTO 370

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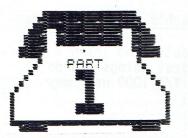
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Joel Brody

Kead part 2 next month



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160 IF INKEY\$="F" THEN GOTO 129

150 IF INKEY#="F" THEN GUIU 129
0
170 GOTO 100
180 CL5
190 LET X=0
200 LET X=1
200 LET X=X+1
220 LET J=J+1
230 PRINT N#(X)
240 IF J=20 THEN GOSUB 290
250 IF X<B THEN GOTO 210
250 PRINT "LAST ITEM ON LIST"
270 GOSUB 290
280 GOTO 80
290 PRINT "KEY "ENTER" TO CON
TINUE"
310 INPUT Z#
320 CLS
330 RETURN
340 CLS
350 LET X=1
370 IF B>A OR X>A THEN GOTO 410
380 IF N#(X) = E# THEN GOTO 490
380 GOTO 370 Ø

LET X = X + 1 GOTO 370